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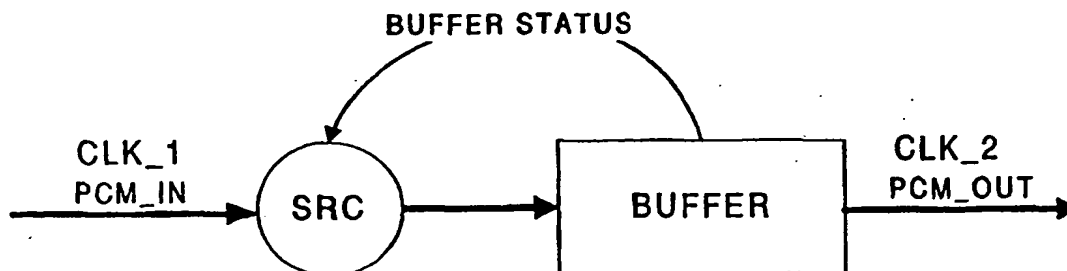


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(21) International Application Number: PCT/EP98/00006 (22) International Filing Date: 2 January 1998 (02.01.98) (71) Applicant (for all designated States except US): NOKIA TELECOMMUNICATIONS OY [FI/FI]; P.O. Box 300, FIN-00045 Nokia Group (FI). (72) Inventor; and (75) Inventor/Applicant (for US only): ENGDAHL, Tomi [FI/FI]; Servin Maijan tie 10 D 44, FIN-02150 Espoo (FI). (74) Agent: PELLMANN, Hans-Bernd; Patentanwaltsbüro Tiedtke-Bühling-Kinne, Bavariaring 4, D-80336 München (DE).			(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i>

(54) Title: A METHOD FOR SYNCHRONIZATION ADAPTATION OF ASYNCHRONOUS DIGITAL DATA STREAMS



(57) Abstract

The present invention proposes a method for synchronization adaptation of asynchronous digital data streams comprising the steps of providing a first digital data stream (PCM_IN) at a first sample rate (CLK_1); inputting said first digital data stream (PCM_IN) to a sample rate conversion means (SRC); supplying data output from said sample rate conversion means (SRC) to a processing element (BUFFER); storing said supplied data into said processing element (BUFFER); and outputting said data stored in said processing element as a second digital data stream (PCM_OUT) at a second sample rate (CLK_2), with said first and said second sample rates (CLK_1, CLK_2) being different from each other; and is characterized by the further steps of detecting a state (BUFFER_STATUS) of said processing element (BUFFER); and controlling said sample rate conversion means (SRC) dependent on the detected state of said processing element. The present invention also proposes a device for synchronization adaptation of asynchronous digital data streams, operating according to such a method.

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INTERNATIONAL SEARCH REPORT

National Application No

PCT/EP 98/00006

A. CLASSIFICATION OF SUBJECT MATTER
IPC 6 H04Q11/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 6 H04Q H04J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 95 22233 A (NEWBRIDGE NETWORKS CORP ; BESSETTE FRANCOIS (CA)) 17 August 1995 see page 1, line 1 - line 11	1, 2, 7
Y	see page 5, line 21 - page 6, line 22; figure 3	3, 5, 6
Y	--- KYEONG SOO KIM ET AL: "THREE-LEVEL TRAFFIC SHAPER AND ITS APPLICATION TO SOURCE CLOCK FREQUENCY RECOVERY FOR VBR VIDEO SERVICES IN ATM NETWORKS" IEEE / ACM TRANSACTIONS ON NETWORKING, vol. 3, no. 4, 1 August 1995, pages 450-458, XP000520864 * section II A * see figure 1 --- -/--	3, 5

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 0 689 318 A (NIPPON ELECTRIC CO) 27 December 1995 see column 1, line 23 - line 25 -----	6
A	WO 95 33320 A (NEWBRIDGE NETWORKS CORP ;COX NEIL (CA)) 7 December 1995 see page 5, line 24 - line 5 -----	1-7